E-RATE DEPLOYED UBIQUITOUSLY (EDU) 2011 PILOT PROGRAM
WC Docket No. 10-222
Application Deadline: December 17, 2010

Robert Louis Stevenson Middle School
Los Angeles Unified School District

Required Information (all applicants):
(1) a full description of the current or planned Applicant Wireless Program, including but not limited to:
a. the nature of the Applicant Wireless Program, including the extent to which the use of connectivity is interactive and utilizes the Internet,

The School2Home wireless project being implemented at Stevenson Middle School is a comprehensive technology immersion program that establishes an infrastructure for learning that moves beyond traditional models of teachers and students in classrooms, to one in which the time and distance barriers of the physical world are minimized by virtual connections among students, parents, teachers, and the broader community. Based on best practices and evaluations from technology programs around the world, School2Home was designed around the Logic Model displayed in Attachment 1.

School2Home has been designed to meet the needs of participating schools and families at every step of the technology adoption and immersion process. School2Home offers the following school and home components:

School Program Components

- ***Planning, Assessment, and School Engagement.*** School2Home engages school leaders in assessing technology needs and developing a School2Home implementation plan.
- ***Technology Bundles.*** All students are provided with a computing device to use both in the classroom and at home with their families during their middle school years. See part C of this question below for more details on devices used.
- ***Professional Development for Teachers.*** All teachers receive 24 hours each of professional development focused on incorporating technology into classroom instruction and communication with parents.
- ***Ongoing Technology Integration Coaching.*** School2Home works with school-site technology coaches to provide real-time, embedded professional development and support the development of teacher leaders in each subject area who will mentor others. See attachment 3 to view the School2Home Monthly Newsletter.
- ***Student Technology Training.*** A student technology program allows students to earn certificates in digital literacy and technical support and helps provide basic school site technical support to their families, teachers and fellow students.
- ***School2Home Learning Academies.*** School2Home principals and teachers participate in statewide and regional learning academies where they will share their School2Home vision and strategies with their peers.
- ***Universal Design and Accessibility.*** School2Home ensures every component of the School2Home program follows the principles of Universal Design and is accessible for the widest range of students and parents possible.

Home Program Components
School2Home provides participating parents and guardians with services and resources to facilitate their use of technology to support student learning and wellness.

- ***Parent Training.*** Parents of participating students will be provided with 6 hours of training that will cover basic digital literacy skills and how to engage students in home-based, online activities to support academic improvement.
- ***Home Internet Access.*** School2Home works with Internet service providers in each region, to offer families without broadband access at home a specially priced broadband solution so students and other family members can use the School2Home computing device at home.
- ***School2Home Website.*** The School2Home web portal links families to schools and provide educational collaboration and communications resources for all stakeholders.

b. how long the Applicant Wireless Program has been in operation and the mobile wireless device(s) being used,

The program at Stevenson was first started in January 2010. During the first year, 725 Dell Inspiron mini 10 netbooks and a carrying case were purchased for 6th graders. This school year, 684 HP 100e netbooks were purchased for incoming 6th sixth graders. The devices are equipped with Windows XP Professional and 7 Starter, anti-theft (Absolute) software, and OpenOffice. All devices are etched with the LAUSD and School2Home logos.

c. a description of any technical issues associated with implementing the Applicant Wireless Program, including an analysis of any problems with the availability of wireless access to students or patrons off the school or library premises and how those issues are being or will be addressed by the school or library,

One of the beta sites is in Riverside, California, which has a citywide free wi-fi network. Connectivity in the home has not been an issue at this school except for a very few students living outside the range of the city's network. In these few instances, 3G cards and services have been purchased from providers to ensure complete coverage.

In contrast, the connectivity issues at Stevenson for home use has been one of the biggest hurdles for the program. AT&T has made DSL lines available for families meeting the California Lifeline requirements. However, the technical and regulatory issues impacting Stevenson families' acceptance for participation in this AT&T program have made it a less than desirable solution. Many families were unable to take advantage of this service. Moreover, many of the students attending Stevenson move from parent to parent and are also often cared for by grandparents. Thus, a landline solution has only met a portion of the need. Students are inherently mobile, so the use of broadband access for anytime, anywhere learning would provide an opportunity to extend learning outside of school and home.

As School2Home extends to more and more students and families across California, it anticipates aggregating the demand for broadband and issuing a statewide RFP for wireless service, ideally reaching a price point that is affordable to the majority of these very low-income families. However, it is projected to take at least three years before sufficient demand exists to reach the desired price points, and the School2Home organization will probably need to handle a significant amount of the paperwork. That is why this pilot

program is so important not only to the Stevenson community, but also to the low-performing middle schools across the state.

d. what training has been or will be provided to teachers, librarians, students or parents to implement the Applicant Wireless Program, and

School2Home has a comprehensive professional development program for teachers as well as a 6-hour parent training program. A brief overview of each program is provided below. Both programs aim to equip these important adults in a student's life with the ability to help their child succeed. To date, all 6th and 7th grade teachers have completed the teacher professional development program and the parent training for the 2010 class of 6th grade parents is nearly complete. By the beginning of the 2011-12 school year, all grade levels/families will be included in this program.

The Teacher Professional Development Program

School2Home provides a core 24-hour program of professional development to participating teachers. School2Home also works with the Stevenson technology coach, the principal, and the Assistant Principals to provide ongoing professional development in a variety of settings including one on one coaching, small group sessions and online courses. The core curriculum focuses on integrating technology into all facets of teaching and learning. The overall goal of the professional development is to ensure that teachers are knowledgeable about supporting student learning in the School2Home 1-to-1 environment, and that they have learned to integrate 21st Century skills, tools and teaching strategies into their classroom practice and homework assignments. Moreover, School2Home helps teachers become committed to using digital tools to improve communications with parents and other caregivers.

Learning Objectives:

Teachers participating in the School2Home professional development program:

- Are prepared to engage their students in using technology on a daily basis.
- Have gained experience integrating 21st Century skills into their teaching practice.
- Are familiar with online resources and web content to support California Content Standards in a student-centered, 1-to-1 environment.
- Have learned pedagogical strategies and identified technologies to support learning activities in the classroom.
- Know how they can use technology to engage parents in supporting their students as learners.
- Are prepared to take advantage of the 1-to-1 environment and broadband connectivity to improve communication with families and increase parent involvement in student learning.

The Session Modules:

School2Home professional development is provided through eight, three-hour modules designed around the International Society for Technology in Education (ISTE) National Educational Technology Standards for Students (NETS•S). The National Educational Technology Standards for Teachers (NETS•T) further provide a framework for educators to use as they transition schools from being Industrial Age spaces to being Digital Age places of learning. The NETS•S focus less on learning about technology and more on

learning with technology. They provide guidelines for how students can use technology to learn key concepts and apply their learning in authentic, integrated ways to solve problems, complete projects and creatively extend their abilities. During the sessions, teachers learn about tools to support their classroom teaching within the context of the NETS•S. Presenters will also share resources that support California Content Standards for middle school students, and participants will have the opportunity to develop a unit for classroom use using the resources shared in the modules. The key themes of each module, based on the ISTE NETS•S, are as follows:

- **Module 1:** Introduction to the School2Home program: Teaching in a 1-to-1 classroom
- **Module 2:** Communication and Collaboration
- **Module 3:** Collaboration and Parental Engagement
- **Module 4:** Cultural Understanding and Global Awareness
- **Module 5:** Research and Information Fluency
- **Module 6:** Digital Citizenship and Cybersafety
- **Module 7:** Critical Thinking, Problem Solving and Real-World Data
- **Module 8:** Bringing It All Together

The Parent Program

The School2Home parent training program provides six hours of training delivered in three, 2-hour sessions over a three-week period to all 6th grade parents (and parents of new students in other grades who have not been through the program. The overall goal of the parent program is to provide parents with the necessary knowledge and skills to become active participants in School2Home, impacting positively the academic outcomes of their child.

Learning Objectives:

Parents participating in the School2Home parent training program will:

1. Know the goals and components of the School2Home program.
2. Learn effective communication strategies to build relationships with and access information from school staff.
3. Acquire basic computer literacy skills.
4. Understand the importance of computer literacy for successful homework completion, passing classes in school, and college preparation.
5. Know how to access child and school academic status information online (where available).
6. Learn how to ensure safe web use.
7. Know how to access technical support, order a high-speed line, and set up an email account.

The Session Modules:

The School2Home Parent Training is designed around recommendations from parents, students and teachers who participated in nine School2Home focus groups. In these focus groups, participants discussed overall reactions to the School2Home program and provided suggestions on implementation and topics for training. Findings from the focus groups were utilized in order to plan effective training sessions. Parent issues included: children's online safety, access to technical support, and the need for basic computer training. All these issues are addressed in the curriculum.

In addition, sessions are based on credible research on technology and parent engagement in schools. From the research, three key concepts arose that have been used to conceptualize the learning objectives. They are: 1) When schools engage parents and parents are involved, there is a positive impact on student outcomes; 2) Parents become more effective in supporting their child's school success when they know how schools work and have relationships with school staff; and 3) School2Home parents must have confidence using the computer, accessing the web, and knowing their children's online use is safe.

Sessions provide parents with the tools they need in order to communicate with teachers and school staff, and they learn basic computer skills to communicate and gather information regarding their child's schooling, assist their child online, and ensure the web safety of their child.

e. the extent to which the Applicant Wireless Program is integrated with federal, Tribal, state, regional or local governmental or non-profit initiatives to achieve educational or community access outcomes;

School2Home is tightly integrated with a wide range of other educational initiatives. These include: 1) the increased use of data for decision-making as detailed in California's "Race to The Top" application; 2) the Title 1 parent engagement program in general and Stevenson's family outreach program in particular; 3) the Digital Literacy initiative of the California Emerging Technology Fund (CETF), the sponsor of School2Home; 4) California's push to move to open source digital textbooks; and 5) the many broadband adoption programs funded by CETF; and 6) other efforts of LAUSD to improve student outcomes through integrated use of technology in and out of the classroom. The School2Home program is leveraging prior investments made by the District's EETT funds and its Microsoft Voucher funds. While Stevenson is still using textbooks, it should be noted that students at the other beta site have turned their books in and are now using their School2Home netbooks instead.

Moreover, it is important to note that leaders from the public, private and philanthropic sectors, each of which now has a stake in seeing that it is successful, designed School2Home. Broadband companies including AT&T, Verizon and Comcast have provided direct financial support to the development of the program along with Google, Intel, and IBM.

(2) the poverty level based on the percentage of students eligible for a free or reduced price lunch under the national school lunch program (NSLP) or a federally approved alternative mechanism, and the current discount rate of the school or library;

For Stevenson Middle School, the percentage of students eligible for a free or reduced price lunch is 87.23% based on an enrollment of 2,154 with 1,879 eligible for FRL. The current SLD discount rate for the school is 90%. The 10% unfunded costs will be covered by funds determined by the school site.

(3) the financial need of the school or library, including any additional budgetary hardships, notwithstanding the school or library's current discount rate;

Financial needs which impact the school include reduction in categorical funding, lack of funding for technology, lower enrollment and loss of teachers and support staff .

(4) all costs, including those eligible for E-rate support and those not eligible for E-rate support, associated with implementing the Applicant Wireless Program, including but not limited to costs for equipment such as e-readers or laptops, access and connection charges, teacher training, librarian training, or student/parent training;

The School2Home program has direct on-site school program costs for the School2Home wireless program that are provided by the School2Home organization as well as costs that are absorbed by Stevenson. As well, the School2Home capacity-building organization provides expertise, guidance and centralized services that are shared with other schools either implementing or planning to implement the program. Each of these costs are identified below.

Annual Average Direct school-site School2Home costs funded by School2Home assuming average of 600 new 6th grade students a year:

Technology bundles* (netbooks and software)	$259,560
Teacher Professional Development (cost of curriculum and presenters assuming 1 presenter for every 12 teachers)	$9,600
Technology Coach (assuming full time teacher)	$60,000
Parent Training Program (facilitators, materials, stipends for parent leaders, etc.)	$25,400
GenYES (Student tech support training class)	$8000
Total Annual Direct School2Home Costs	**$333,400**

* LAUSD funded the technology bundles the first year.

In addition to these direct school site costs, Stevenson has invested significant human and financial resources toward the success of School2Home.

Average Annual Direct school site costs covered by Stevenson and/or LASUD

Release time for teachers for professional development	$50,000
Additional resources for parent training program (custodial and staff)	$59,000
Release time for teacher leaders	$5,000
Total	$114,000

Finally, the School2Home nonprofit organization (housed within the California Emerging Technology Fund) has an operating budget of approximately $500,000 with which it provides ongoing support to the teacher and parent program, builds and maintains a website with online resources, manage the evaluation program, carries out a public relations program and continues to raise funds with the private and philanthropic sectors while also seeking policy changes to sustain the program for the long term.

To date, the program has attempted to meet the home broadband connectivity needs with free DSL lines from AT&T. However, as noted earlier, this has not proven to be a viable option for Stevenson Middle School. Thus, funding for a wireless broadband is a top priority for Stevenson's School2Home program.

(5) the committed school or library resources available to implement the entire Applicant Wireless Program, including whether those funds are from the school or library's general budget or from an outside funding source;

School2Home provided funding for a full-time technology coach and program coordinator on campus to support program and curricular needs. Additionally, Partnership for Los Angeles Schools (PLAS) has provided a part-time technician to support the additional technology on campus. School2Home has provided funding for the technology bundles (2nd year), the parent education and engagement program, the student technology training, teacher professional development and teacher coaching and the program evaluation.

(6) the effect EDU2011 support for off-premise connectivity is likely to have upon the school's or library's projects;

Off-premise connectivity for all Stevenson students is likely to strengthen the overall academic performance of our students as it enables teachers to enrich and extend their curriculum beyond the school day. It will open new avenues for parent communication and will provide students a venue to use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

(7) an analysis of the cost-effectiveness of the current or planned Applicant Wireless Program as compared to the use of other types of technology that would also meet the Program's objectives;

Cost Comparison for Stevenson Middle School

	Fixed Wired/Wireless	Wireless Broadband
Non-Recurring LAN Modernization Cost*	$293,800.00	n/a
Recurring Annual Internet Access Cost (50 Mbps for fixed wired/wireless)	$20,100.00	$1,228,200.00
Recurring Annual Maintenance Cost	$14,400.00	n/a (covered in above charge for internet access)
Recurring Internet Access at Home	$1,756,326.00	n/a (covered in above charge for internet access)
TOTAL ANNUAL COST	**$2,084,626.00**	**$1,228,200.00**

* Amortized over five years

The figures above show that a wireless Broadband solution is more cost-effective than a fixed wired and wireless solution at school and at home when providing students and teachers with access to instructional resources. The fixed wired and wireless solution includes the cost of modernizing and maintaining the school site network, providing Internet access at the school site, and providing internet access at the homes of students and teachers. The wireless Broadband solution includes the cost of broadband connectivity to provide students and teachers with anytime, anywhere access. Based upon the analysis, the wireless Broadband annual cost is approximately 42 percent less when compared to the current fixed wired and wireless home and school access solution.

(8) any relevant technology planning documents and, if applicable, a statement of long-term objectives for the Program;

The LAUSD Education Technology Plan was approved by the California State Department of Education on December 5, 2008. This plan took effect July 1, 2009 and will expire on June 30, 2012. This plan guides the District's integration and procurement of technology resources to support the instructional program. Specific items relevant to EDU2011 include:

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Action Plan (for all 5c goals) Timeline

a. The Educational Technology Group and ITD will survey schools to determine current practices and identify potential pilots for using ubiquitous mobile learning devices, e-textbooks, virtual desktop systems, blade computing, creative lease options and other concepts to meet and sustain Plan goals and budget needs. Pilots in 08-09 and 09-10 at all levels, with successful strategies spreading in 09-10 and after (ongoing, 2009-12)

Page 101 states…
Consistent with this research, LAUSD's Technology Plan has been designed to address the benefits and rationale for both learning "from" technology (i.e., using computers to assist students in learning skills, etc.) and learning "with" technology (i.e., using technology to assist students with projects and other higher order thinking skills lessons). The Plan also addresses sufficient and accessible equipment, especially as it relates to student-to-computer ratios, and technical and instructional support. Long-term planning and monitoring are built into the Plan.

Page 98 states…
Under this Technology Plan, students will use computers (including mobile laptop labs), online resources (such as streaming media, reference databases, and podcasts), analog and digital recording equipment, and projection devices to plan, develop, and present standards-based projects in core and additional subject areas. Students will share ideas and knowledge using tools and forums such podcasts, videoconferencing, email, monitored discussion boards, student response systems, conferences, symposia, and competitions, and new, emerging technologies.

Page 49 states…
The District is also investigating opportunities for providing low-income parents in middle schools with access to a free computer and Internet access, the first pilot for which will be in fall 2008 as detailed in the Action Plan.

(9) a description of the specific measures taken, or that will be taken, to ensure compliance with the Children's Internet Protection Act and measures to protect against waste, fraud, and abuse; and

In partnership with CommonSenseMedia.org, Stevenson Middle School is teaching their students the importance of being a good digital citizen. Throughout the school year, students are being taught how to appropriately and affectively conduct themselves on the World Wide Web through lessons on safety and security, cyberbullying, media vs. digital media, fair use laws, and netiquette.

To protect children from being potentially vulnerable to predators and having access to inappropriate content on the Internet while off campus, Stevenson Middle School, in partnership with the LAUSD and in coordination with OpenNDS.com, setup a web content filter to restrict student's access to potentially harmful Internet content on and off the school's campus. A remote DNS server has been enabled with OpenDNS.com filtering and all students' laptops DNS addresses have been locked into the LAUSD's remote DNS server. The LAUSD Internet Technology Department dedicated a web server to Port-Forward a public IP address to the local IP address of the DNS server inside of the school district's network. The DNS server's forwarders were set to the OpenDNS.com's Publc IP addresses. Once this was setup, using a free OpenDNS.com account, the LAUSD's Public IP address was configured to filter specific content categories including but not limited to chat, social networks, adware, academic fraud, dating, drugs, gambling, nudity, pornography, proxys, sexuality, and weapons.

The District maintains strict policies and procedures regarding procurement procedures and documentation as well as ethics with regard to the use of technology in and out of classrooms. The District's Acceptable Use Policy (AUP) is also reviewed with all staff and students each year and parents must sign that they have received and will work with their child on appropriate use of computers and the Internet as a requirement for securing an e-mail account.

(10) a description of internal policies and enforcement procedures governing acceptable use of the wireless devices used in the Program off the school or library's premises.

Users of LAUSD computers systems, networks, or the Internet must adhere to the Acceptable Use Policy. Site administrators distribute, collect, and keep on file completed AUP forms from students prior to authorizing access to the Internet or the District's network.

The District's Acceptable Use Policy is written to help prevent unauthorized access and other unlawful activities by users online, unauthorized disclosure of or access to sensitive information, and to comply with the Children's Internet Protection Act ("CIPA"). As used in this policy, "user" includes anyone using the computers, Internet, email, chat rooms and other forms of direct electronic communications or equipment provided by the District (the "network."). **Only current students or employees are authorized to use the network.**
The District uses technology protection measures to block or filter, to the extent practicable, access to inappropriate material over the network. The District reserves the right to monitor users' online activities and to access, review, copy, and store or delete any electronic communication or files and disclose them to others as it deems necessary. Users are also cautioned that they should have no expectation of privacy regarding their use of District property, network and/or Internet access or files, including email.

Acceptable Uses of the LAUSD Computer Network or the Internet
Schools must verify each year students using the computer network and Internet access for that school year have a signed page acknowledging this policy. Students who are under 18 must have their parents or guardians sign this page and schools must keep it on file. Once signed that permission/acknowledgement page remains in effect until revoked by the parent, or the student loses the privilege of using the District's network due to violation of this policy or is no longer an LAUSD student. Employees and other users are required to follow this policy. Even without signature, all users must follow this policy and report any misuse of the network or Internet to a teacher, supervisor or other appropriate District personnel. Access is provided primarily for education and District business. Staff may use the Internet, for incidental personal use during duty-free time**. By accessing the network, users are deemed to have agreed to this policy.** Users uncertain as to whether a particular use is acceptable or appropriate, are Instructed consult their teacher, supervisor or other appropriate District personnel.

School2Home has developed a model student/family handbook for use with participating schools. Each school is able to modify the template to meet its own unique needs.

Required Information (schools only):
(1) the location of the school; Stevenson Middle School is located at 725 S. Indiana St, Los Angeles, CA 90023

(2) the name of the school applicant, along with a complete list of the individual schools that will be served, including their billed entity numbers;
The applicant is Robert Louis Stevenson Middle School (Stevenson). The billed entity number for Stevenson is 100554.

(3) a description of the school district or school, including the type of school, such as private, public, charter, or other special type of school;
Stevenson is a public school under the leadership of Mayor Villaraigosa's Partnership for Los Angeles Schools (PLAS) and the Los Angeles Unified School District. Stevenson is located in East Los Angeles, serves 2,163 students in grades 6 though 8. Its demographic characteristics are summarized below:

- 99 % Latino
- 100% eligible for Free or Reduced Lunch
- 31% English Language1 Learners
- 10% Special Education Students

People of color and low incomes are most likely to be on the wrong side of the digital divide. A majority of these students come from families that do not have Internet access or a computer, making it difficult for them to keep up with their peers with access and limiting the ability of teachers to leverage the power of technology to engage students in 24/7 learning and connecting with parents. That is why Stevenson has embraced the School2Home program model, a technology immersion program with its very strong focus on teacher professional development and parent training to create a digital community of learners.

As described in this grant request, the School2Home wireless program focuses on learning inside and outside of the classroom. Students are provided with a netbook to use at school and at home, once a parent or another adult has gone through 6 hours of technology training. The program is comprehensive and complex; yet, the single most challenging component has been the provision of affordable broadband service at home. With every other component in place and in operation, Stevenson is well suited to pilot an innovative and expanded use of this E-Rate to enhance the home learning component.

(4) a description of the Program's curriculum objectives, the grade levels included, and the number of students and teachers involved and/or being served as part of the program; and
Stevenson is one of two schools in California currently piloting the School2Home model, which was designed to address the Achievement Gap and the Digital Divide in California by integrating the use of technology, the Internet, and wireless broadband technologies into teaching and learning at low-performing middle schools (those in Program Improvement) throughout California. School2Home addresses the persistent education challenges that disproportionately impact students of color from disadvantaged neighborhoods. It was

developed with the guidance of the Leadership Group comprised of employer, education, and community leaders in California along with an extensive array of experts who served on Design Teams. Riverside Central is funded for two years (and Stevenson Middle School is funded for 3 years, with schools being required to pay an increasing share of the cost each year. Once the program has been fully developed at the two beta sites, it will be implemented in another 12- 18 schools to fully evaluate and validate the program so it can be made available to all low-performing middle schools in California on a competitive basis.

Curricular Objectives

Program curricular objectives center on preparing students, especially low-income students attending low-performing schools with persistent racial and ethnic achievement gaps, with the skills they need to succeed in a global economy. School2Home ensures these students have the chance to acquire core skill in foundational subjects such as reading, writing, math and science, as well as the opportunity to develop the 21st Century skills they need to do well in high school, college, and their careers.

As described in more detail in the professional development section, the School2Home technology immersion program helps teachers infuse their pedagogy with technology rich resources and engage students in collaborative project-based learning activities designed to encourage problem solving through collaboration, communication, creativity, and critical thinking. School2Home works to help students acquire deep knowledge within a specific domain as well as the ability to make cross-curricular connections. Students are taught how to use the technology tools that professionals (and students in higher income neighborhoods) routinely use every day: web resources and participatory technology such as wikis and blogs for research, collaboration, and communication. Students are taught how to deal with real world problems, develop search strategies, evaluate the reliability and authority of websites and communicate using multi-media technologies. The School2Home curriculum content helps students become the life-long learners they need to be in order to fill the jobs that have yet to be created and to solve the complex issues they will inherit. Importantly too, School2Home uses technology to engage parents as learning partners in their child's education, something research has proven time and time again to be significant and student performance.

Grade Levels and Students Served

Currently, the School2Home program at Stevenson is serving a total of 1,297 students in the 6th and 7th grade as well as at least one of their parents or another adult in their life. A total of 85 teachers and staff are also part of School2Home. Although School2Home will eventually serve the entire student body which totals 2,163 students, it is being implemented one grade level at a time and is now in its second year of implementation.

(5) a summary of any data collected by the school on Program outcomes and achievement of Program objectives.

School2Home was first introduced to Stevenson Middle School last January after it agreed to serve as a beta site for testing various program components including: providing laptops for students to use at home and at school; offering 24 hours of School2Home professional development to teachers and staff; and registering and providing 6 hours (in three 2-hour sessions) of training to parents. An external evaluator (Rockman, et al.) conducted a

formative and summative evaluation of the program implementation. This rigorous evaluation included site visits, observations, and pre and post-surveys of students, teachers, and parents.

In addition to increasing student academic achievement and 21st Century Skills, School2Home seeks to improve the ability of teachers engaging parents as partners in their child's education. Thus, data were collected from all three stakeholder groups. All observations and data presented in this section on data are from the Rockman, et al., Final Evaluation Report on the School2Home Beta Testing Program. Because the program was implemented late in the year and students were not able to use their netbooks for more than a few weeks, quantifiable academic outcomes were difficult to measure. It is anticipated that the continued use of the netbooks integrated into all curricular areas with 24/7 Internet access throughout the 2010-2011 school year and beyond will positively impact CST scores across the target student population.

Data on Parents

Some of the most significant gains occurred with parents. The average skill level before the training was "pre-basic" while after the training, the average approached "basic." This is still fairly low, but significantly higher than the pre-training level. Before the training, fewer than half of the parents had ever saved a document or knew where to go for tech support, and only 58% had ever used a search engine. The proportion of parents who responded positively to each of these questions increased significantly after the training.

The School2Home trainings also appear to have been successful in providing parents with the ability to use technology to increase their engagement in their child's education, as shown in Table 1 below:

Table 1
Parents Self Reported Increase in School Engagement (N=600)

	Pre-Survey Proportion	Post-Survey Proportion	Post–Pre difference
Do you know how to find your child's homework information online?	27%	84%	57%
Have you accessed your child's school records through the World Wide Web?	5%	52%	47%
Have you accessed a website online that could help you and/or your child learn more about college?	31%	52%	21%
Do you know who your child's counselor is?	32%	49%	17%
Have you emailed your child's teacher or counselor?	13%	25%	12%
Have you asked your child's counselor about your child's academic progress?	23%	24%	1%

Teachers

According the Rockman, et al., evaluation report, "teachers were very positive about the impact of introducing the technology and its associated resources and training on student learning, on the use of technology, and on student interest and engagement. In reflecting on what the program did for their students, teachers expressed a very positive perspective on how it has changed their pedagogy, and the activities of the classroom."

From the prospective of the participating teachers, the students are more engaged, motivated and have a more positive attitude as shown in Table 2.

Table 2
Teacher Reports of School2Home Impact on Students' Engagement (N = 36)

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean
Students are more engaged in classroom work.	3	2	12	16	3.24
Students volunteer to participate in classroom work.	2	2	15	11	3.17
Students' attitudes toward school have improved.	3	7	13	10	2.91
Students are motivated to do the schoolwork.	4	6	12	10	2.88
Students complete schoolwork at home.	5	6	12	6	2.66
Parents help students more with homework.	4	12	5	3	2.29

1 = strongly disagree; 2 = somewhat disagree; 3 = somewhat agree; 4 = strongly agree

Teachers also identify that the program has substantially increased the presence of 21st Century Skills in their classrooms. Note, however, that the program was in place for only a few weeks, so the increase in the presence of these skills may be based on limited efforts associated with teacher professional development and the provision of the technology resources and supporting conditions to change the opportunities in the two schools.

Table 3
Teacher Reports of School2Home Impact on Students' 21st Century Skills (N = 36)

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean
My students do more self-directed activities.	3	3	11	14	3.16
Students are more	2	5	11	13	3.13

comfortable working in small groups.					
My students do more inquiry-based activities.	3	3	12	12	3.10
My students do more project-based activities.	3	6	8	13	3.03

1 = strongly disagree; 2 = somewhat disagree; 3 = somewhat agree; 4 = strongly agree

Similarly powerful to changes in students' attitudes and engagement are the improvements in core study skills and 21st Century skills that teacher with the introduction of School2Home. While some of the issues were explored by asking questions in different ways, the results are consistent and very positive.

Table 4
Teacher Reports of School2Home Impact on Students' Skills (N = 36)

S2H impact on students…	**No impact**	**Somewhat improved**	**Much improved**	**Mean**
Interest in learning	4	21	9	2.15
Research skills	5	20	9	2.12
Presentation skills	11	15	7	1.88
Ability to work with other students	10	18	6	1.88
Problem-solving skills	13	15	6	1.79
Writing skills	11	20	3	1.76
Grades	12	19	3	1.74

1 = no impact; 2 = somewhat improved; 3 = much improved

Students

Because the program was implemented in the second semester and so much time was devoted to securing the netbooks and training teachers and parents, the students had very little actual time to benefit from the School2Home wireless program at the time of this evaluation. Thus, much of the information collected during the beta valuation is being used as baseline information for the ongoing evaluation program. Below are some of the baseline highlights.

While students usually over-estimate their computer skills, the participants in the School2Home pilot project are very positive about their use of computers, their responses may be more of a baseline and only reflect slightly the impact School2Home had on their attitudes and activities.

Table 5
Student Attitudes about Computers

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean
I am good at using the computer.	11	9	158	164	3.39
I like using the computer at school.	16	9	74	237	3.58
I like using the computer at home.	20	11	43	263	3.63
We use computers for learning in school.	18	12	87	218	3.51
I use computers to do my homework.	24	32	132	149	3.20
Computers make schoolwork fun.	15	10	83	228	3.56
Computers make schoolwork easier.	16	15	70	230	3.55

1 = strongly disagree; 2 = somewhat disagree; 3 = somewhat agree; 4 = strongly agree

Students also reported high ratings for attributes that are associated with engagement in schooling.

Table 6
Student Engagement

I pay attention in class.	4.1
I work hard in class.	4.2
I do my homework.	4.1
I ask questions in class.	3.5
I skip school.	1.2
I turn in my assignments on time.	3.9

1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Very Often

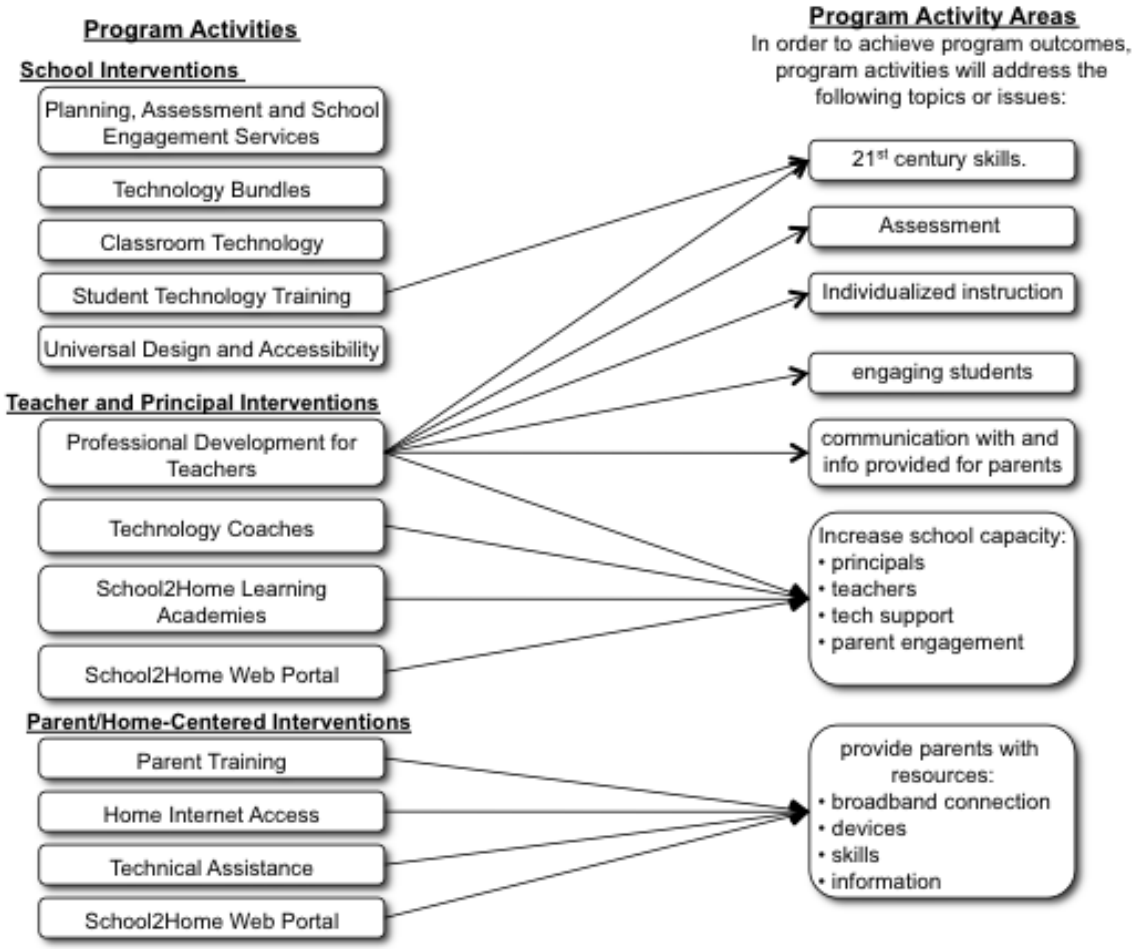
Student attitudes toward school are also very positive, reflecting a general positive perspective associated with this project.

Attachment 1
SCHOOL2HOME LOGIC MODEL

This model describes why and how School2Home's integrated technology immersion program positively impacts student achievement, and outlines how the program's methods and activities affect short-term and long-term outcomes. This logic model drove the design of School2Home and the program evaluation.

- When technology facilitates communication between home and school, it opens avenues of information to parents about their child's academic standing, and parents are involved in parent education and parent engagement programs provided by School2Home, parents are more knowledgeable about and involved in children's education, which leads to better study habits and improved attendance that have a positive impact on student skills and test scores, and eventually leads to increased motivation, increased graduation rates and enrollment in higher education.
- When technology enables teachers to engage in continuous assessment, differentiate instruction, and design engaging lessons and facilitates the formation of communities and teacher leaders, teaching at the school becomes more individualized and incorporates 21st-century skills, which leads to increased student learning and improved student skills, which both produce higher test scores.
- When technology extends the learning day and enables students to do more enjoyable activities, student engagement and learning is increased, which leads to higher test scores and also reinforces fewer absences and behavior problems and better study habits, which also contribute to higher test scores.
- School2Home's Principal Leadership Program forms a community of leaders where principles can share best practices, which encourages improved leadership, leading to improved schools.
- Additionally, School2Home recognizes that technology facilitates self-directed learning, improves family access to resources, and builds the school's capacity to gather and use data. In the long term, the program will also ensure that students have 21st-century skills, that students and parents are digitally literate and have access to digital resources, and that low-performing schools have improved programs.

All of these short-term and long-term outcomes will help School2Home schools achieve their vision of closing the digital divide and achievement gap, helping at-risk students succeed, and increasing the productivity of California's workforce, especially in STEM subject areas.



This model shows links between program activities and how they address different issues to achieve desired outcomes.

- Professional development for teachers will address 21st-century skills, assessment, individualized instruction, student engagement, increased school capacity, and communication with families.
- Student technology training will lead to improved 21st-century skills. Professional development for teachers, the use of technology coaches, School2Home learning academies, and the School2Home Web Portal will all increase school capacity.
- Parent training, home Internet access, technical support for families and students, and the School2Home Web Portal all provide families with digital resources.

Attachment 2

Stevenson Professional Development Action Plan

1. Create opportunities at each staff meeting for promoting success in the School2Home program.
    a. Establish a schedule so that different departments take leadership each month to share successful strategies, tools, ideas, and lesson plans.
    b. Review ideas for using technology to engage parents, and have teachers share recent successes (possibly involve parents from the Parent Center in one or two meetings).
    c. Include a "magic moment" that highlights a technology tool or other interesting resource to enhance student learning.

2. Create opportunities at department meetings for promoting success in the School2Home program.
    a. Review upcoming curriculum topics and strategize ways technology can support these lessons.
    b. Review previous month's use of technology and document successes and trouble-shoot problematic areas.

3. Identify three teachers from each department--one for each grade--to lead and assist the department in effective use of the netbooks at Stevenson. This cadre would
    a. Receive additional professional development and support from Pamela Stiles, Technology Coach - School2Home Site Coordinator.
    b. Receive online support from School2Home.
    c. Have opportunities to share and mentor their colleagues.
    d. Work with curriculum coaches to help them integrate technology into their work supporting teachers.
    e. Benefit from opportunities to attend conferences such as Computer-Using Educators (CUE): March 17-19, 2011 in Palm Springs, CA; International Society for Technology in Education (ISTE): June 26-29, 2011 in Philadelphia, PA; Professional Learning Communities and Technology Conference, California League of Middle Schools (CLMS): January 14-16, 2011, Monterey, CA.

4. Offer ongoing professional development opportunities to all teachers.
    a. Continue to offer after school opportunities, based on stated needs and interests, to support technology integration.
    b. Integrate technology and netbook activities into the current Tuesday professional development series provided to departments.

c. Encourage teachers to seek other appropriate professional development opportunities online and in person.
d. Help 8th grade teachers prepare for School2Home implementation next fall by beginning their 24-hour School2Home professional development in March 2011.
e. Provide structured opportunities throughout the year for teachers to work together, revisiting the School2Home professional development website and its related resource pages.

5. Provide ongoing support to teachers with minimal technology skills.
   a. Enlist Gen Y students to partner with teachers in the development of the technology component of their lessons.
   b. Encourage teachers to participate in after school professional development opportunities.

6. Provide opportunities for teachers to collaborate and share lesson plans and activities.
   a. Encourage teachers to participate in the Brokers of Expertise School2Home group where they can recommend resources to colleagues, take part in online discussions, find resources and lesson plans, and connect with teachers from other School2Home schools.
   b. Collaborate with colleagues on a unit or lesson once a semester.
   c. Add units or lessons to the planned Stevenson online lesson plan bank.

7. Continue ongoing planning to further School2Home implementation.
   a. Continue or initiate deeper conversations among the School2Home community to explore the use of the netbooks at home and at school.
   b. Have teachers and administrators participate in ongoing surveys to inform these conversations, including a survey in early December conducted by School2Home to collect information on self-evaluated progress and current needs.
   c. Each quarter, review the expectations document with staff to check in on whether students, teachers, parents and the school are meeting established goals.
   d. Review what is working well with Central's School2Home implementation and what can be improved in staff meetings twice a year.
   e. Seek broad input from the Stevenson community in the development of a school-level technology plan.
   f. Incorporate elements of the School2Home implementation (e.g., technology use; parent engagement) with planned actions to be taken in the Stevenson's new Single Plan for Student Achievement.